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BELGIUM
Energy Profile 2000

I. Statistical Information

Primary Energy Consumption

1999	Ktoe	%
Coal	7,439	13.00
Petroleum	23,610	41.30
Natural Gas	14,684	25.70
Hydro	415	0.70
Nuclear	10,951	19.10
Wind/Solar	114	0.20
Total	57,213	100.00

II. Evaluation of Sector

Electrical Power Systems, Oil and Gas Field Machinery and Services and Renewable Energy Equipment

- A) On a scale of 1 (low) to 5 (high), evaluate the priority given by the host government to energy development: 5
- B) On a scale of 1 (low) to 5 (high), evaluate country's receptivity to U.S. products and services: 5
- C) On a scale of 1 (heavy) to 5 (little), evaluate competition for U.S. exporters from local domestic suppliers: 1
- D) On a scale of 1 (heavy) to 5 (little), evaluate competition for U.S. exporters from third-country suppliers: 1
- E) On a scale of 1 (severe) to 5 (little), evaluate overall effect of trade barriers on U.S. exports of products and services: 3

III. Narrative Information

Belgium, a country the size of Maryland with ten million inhabitants, has a well-developed electric power system. The country's power generating facilities are considered to be of a high technical standard and well maintained.

Electrabel, Belgium's major private sector power producer, generates 84 % of Belgium's electricity consumption, the Societe Cooperative de Production d'Electricite (SPE), the public sector producer, generates approximately 8 %, and the private energy producers (PEPs), which are industrial companies generating their own power, account for the balance. Electrabel distributes 95 % of the electricity generated in Belgium.

Distrigas, which owns the gas pipelines in Belgium, is controlled by Tractebel, which also controls Electrabel. Tractebel is owned by the French Suez/Lyonnaise des Eaux industrial holding group. The electricity and gas sectors are therefore controlled by two powerful private-sector companies (Electrabel and Distrigas) that share a common parent company (Tractebel), which is owned by a French group (Suez Lyonnaise des Eaux).

In April 1999, the Belgian government passed the EU Directives on electricity and gas deregulation into law. In accordance with the new law, a program is being developed to open up the electricity grid, currently owned by Electrabel, and the national gas pipeline system, currently owned by Distrigas, to independent electricity and gas suppliers. This includes establishing tariffs for the transport, by independent suppliers, of electricity and gas on the new national grid and pipeline system. The framework for competition in the energy sector is therefore being created. The question is to what extent outside

competitors will be able to break into a Belgian energy market, which up to now has been controlled by powerful inter-linked companies on a quasi monopolistic basis.

Electricity Consumption

Electricity consumption, totaling 75,935 GWh in 1999, increased 0.5% over 1998, compared with a 3% increase the previous year and an average 2.2% average annual increase during 1995-1999.

On the industrial side, this lower growth rate was mainly due to reduced consumption in the steel sector, where one major company was closed for a large part of 1999, and the chemical sector, which registered a small decrease in consumption. On the consumer side, warmer temperatures accounted for a small reduction in consumption.

Nuclear power accounted for 57.8% of electricity production, with the remainder generated by solid fuels (12.0%), gas (26.7%), petroleum (1.1%) and steam recuperation (0.6%). The balance of production (1.8%) consists of hydraulic and other reusables.

Gas Consumption

Gas consumption in 1999 totaling 612,000 TJ increased 6% over 1998. The largest increase was in gas for electricity production, which increased 21.4% over the previous year. Consumption for industry increased by 6.3% in the same period. Domestic consumption decreased by 3.0%, the result of milder climatic temperatures.

Natural gas supply came from Norway (39.6%), The Netherlands (29.6%), Algeria (27.6%) and Germany (3.2%).

Overall, during the past ten years, gas consumption has grown by 60%, which reflects the growing share of natural gas in Belgium's energy market. With the steady construction of cogeneration electricity generators and conversion of existing coal-fired generators to gas-fired ones, the consumption of gas will continue to increase steadily, mainly at the cost of solid fuels. Environmental issues, the anti-nuclear policies of the Ecolo members of the present government coalition, and the steady increase in the supply of natural gas by European producers are major causes of this trend.

Electrical Power Generation and Transmission Equipment (ELP):

1999	Capacity – MW	Production -Gwh
Thermal	8,276	32,597
Hydro	1,406	1,453
Nuclear	5,713	46,635
Total	15,395	80,685

The total market for electric power equipment, including replacement parts and maintenance, is estimated at \$2.56 billion annually. Included in this figure are the new plant and equipment budgeted under the Belgian National Equipment Program for Electricity Generation and Transmission Facilities 1995-2005. The Program calls for investment of \$9 billion over a ten-year period. It is estimated that \$6.7 billion will be spent to refurbish and upgrade existing energy producing facilities, particularly nuclear ones. The balance of \$2.3 billion is targeted towards improving transmission, including an increase in the mileage of underground transmission lines. The further expansion of new nuclear facilities is not included in the program.

The Belgian transmission network is about 75,000 km long. Of this, three-quarters are underground and one quarter is above ground. Part of the government's 1995-2005 Plan is to steadily increase the proportion of underground lines and reduce the use of aerial lines for environmental reasons.

Oil and Gas Industry Equipment

The market for plant and equipment for the oil and gas sector is difficult to evaluate, as it covers the reception, storage, and transportation of these products, as well as refining in the case of oil. There is no natural source of either oil or gas in Belgium. Where plant is concerned, this is largely constructed with materials and equipment supplied by local firms. According to local trade sources, estimates of imported equipment, including gauges, valves, and electronic control equipment are \$2 billion annually.

Belgium discontinued coal production in 1992 due to the high cost of deep-shaft mining. Steam coal imports are approximately 5,000 tons annually. Coal dependency will decrease over the next ten years as a direct result of the National Equipment Program for Electricity Generation and Transmission Facilities which has approved a plan to decommission 24 coal-fired units in fourteen locations. In addition, some coal-burning facilities are being re-fitted to burn natural gas.

The National Equipment program states that the overall demand for natural gas is expected to increase. Environmental concerns about greenhouse gases and the National Equipment program's call for a 5% reduction of carbon dioxide levels by the year 2000. This will serve as an impetus to make natural gas the preferred energy source.

Distrigas, controlled by Tractebel, still has the exclusive right to transmit gas by pipeline in Belgium and is responsible for importing, transmitting, and storing natural gas. This is about to change under the EU directive on gas deregulation, which will require Distrigas to open up its gas pipelines to other suppliers. The Interconnector undersea gas pipeline between England and Belgium will be opened in October 1998. The Interconnector project, which will cost BF 22 billion (\$580 million), is largely financed by bank financing (75%). Distrigas has approximately 5% of the shares while 40% is held by British Gas.

Oil imports have increased steadily since 1991. Belgium's Petrofina oil company processes over five million tons of oil in Belgium per year. The two largest refineries are in the Antwerp area; one is owned by Petrofina and the other by Esso.

Renewable Energy Equipment (REQ) (in \$ million):

	1997	1998	1999est
Import Market	2.9	2.8	2.9
Local Production	2.3	2.1	2.1
Re-exports	-	-	-
Total Market	5.2	4.9	5.0
Imports, U.S.	0.15	0.14	0.14
Exchange Rate	34	35	40

Renewable energy is in its infancy in Belgium. Only 0.9 % of primary energy and 1.8 % of electricity consumption in Belgium is renewable. The market for renewable energy equipment in Belgium is therefore small (estimated US \$5 million). An increase of 27-30 MW of renewable energy capacity, especially wind energy, from its current 270 MW is expected by 2005.

The main source of renewable energy in Belgium is hydropower. Efforts are being made to develop a hydro energy system based on water pumped into reservoirs during off-peak periods in nuclear plants. Hydro production, which is currently about 0.7% of electricity generated, is expected to increase by up to 5% per year. Wind and solar sources are not likely to develop into a substantial market share due to the lack of appropriate natural resources, despite government and EU programs to encourage development of non-polluting electricity generation. Between them, they only represent 0.2% of energy generated.

Pressure to develop environment-friendly systems is strong. However, in a private sector industry with closely controlled electricity rates, there is little incentive to invest in new technology unless a satisfactory financial return is guaranteed. However, there have been new initiatives to promote the Rational Energy Use program. The Control Committee for Electricity and Gas has allocated BF 175 million (\$5.8 million) for the promotion of the REU program which is directed at decreasing energy consumption in Belgium by education programs, tariffs, and controlling devices, such as double-tariff meters.

IV. Major Procurement or Private Projects on the Horizon (next 18-36 months)

The National Equipment Program 1995-2005 outlines a \$9 billion investment program in the electricity sector during the ten-year period. Of this amount, \$6.7 billion is being spent on the refurbishing of existing facilities, primarily nuclear. The remaining \$2.3 billion is being spent on improving electricity transmission. The program is scheduled to be updated in 2000, although no deadline for this has been established. For further information on the Plan, please contact the Commercial Section in Brussels.

Deregulation in the Electricity and Gas Sector

The bill passing the EU energy directives on electricity and gas into Belgian law was passed in April 1999. The provisions of the law confirm the implementation date for the first stages of electricity deregulation on February 19, 2000 and gas deregulation on August 10, 2000.

Under the new law, 33% of the Belgian electricity market has been deregulated in the first stage. This 33% share of the market (higher than the minimum 24.48% stipulated in the EU directive) will include the approximately 60 major industrial users with a consumption of over 100 Gwh per year. By 2006 or sooner, the liberalized portion of the market will rise to 39% and include all industrial users. During the period 2006-2007, the market for private consumers will be progressively liberalized, and after 2007 it will be totally deregulated. Some problems remain over how to handle the role of the inter-municipal utility companies, which have historic rights to distribute gas and electricity to private and small industrial consumers. While redefining their legal and fiscal format should not prove a problem, it is not yet clear how their historic right to distribute energy within their jurisdictions will be reconciled with the principles of liberalization.

The key to the electricity deregulation issue is the creation of a new transmission company to manage the national grid as an independent company. Electrabel, currently the owner of most of the transmission lines in Belgium, is expected to be the leading contender in bidding for the right to create and manage such a company.

In the gas sector, a similar system to that adopted for the electricity sector will be applied, with the national pipeline system being opened up to national and foreign suppliers other than Distrigaz, which currently has a de facto monopoly in the gas sector. Deregulation in the gas sector comes into force on August 10, 2000 with the liberalization process scheduled for completion by 2010 or sooner.

The Belgian government has created the Commission for the Regulation of Electricity and Gas (CREG), which is a new regulatory commission to manage the deregulated energy sector. The Electricity and Gas Control Committee (EGCC) will continue its role as regulator until 2007 for electricity and 2010 for gas.

V. Major Trade Events/Fairs

COGEN Europe Annual Conference and Exhibition '99 UPDATE

Location: Brussels, Belgium

Date: October 1999

Organizer: COGEN Europe

Rue Gulledele 98

1200 Brussels, Belgium

Tel: 32/2/772.82.90

Fax: 32/2/772.50.44

Contact: Mr. Simon Minett, Director

Comment: This is the main conference in Belgium that solely discusses the developments taking place in the electricity market.

VI. Country's Methods of Procurement

Electrabel, a public limited company and subsidiary of the Tractebel holding group, accounts for 84% of electricity production and 95% of distribution. The Societe Cooperative de Production d'Electricite (SPE), the public sector generator, accounts for 10 %, and small independent producers account for the balance. The industry is closely supervised by a number of entities such as the Control Committee for Electricity and Gas (CCEG), the Management Committee of Electricity Companies (CGEE) and the Belgian Association of Electricity Producers and Distributors (FPE). The CCEG is a public utility agency created to protect the public's interest regarding the control and development of the energy sector. The CGEE, a joint body consisting of the private sector producer Electrabel and the public sector producer Societe Cooperative de Production d'Electricite (SPE), was created to advise its members on investment policies, accounting, planning and tariff issues. The FPE is a professional association that distributes statistical information on electricity production, distribution, and investment. The addresses of CCEG, CGEE and FPE are given below in the Points of Contact section.

Most purchasing negotiations and contracting arrangements are made through Electrabel or ad hoc purchasing committees coordinated by Electrabel. All major projects are handled in accordance with EU public procurement regulations, which require companies to inform the European Commission of any projects for which either the equipment is valued at more than BF 16 million (\$0.4 million). The address of Electrabel is given below under Points of Contact.

VII. Means of Financing Procurement

The financing of purchases is the responsibility of each energy producer and/or distributor. The government does not provide financing or subsidies.

VIII. Points of Contact

A) American Embassy
Commercial Section
27, Boulevard du Regent
1000 Brussels

Tel: 32/2/508.24.53

Fax: 32/2/512.36.44

Contact: Mr. George Luff, Commercial Advisor

B) The Control Committee for Electricity and Gas (CCEG)
20, rue de la Pepiniere, Box 2

1000 Brussels
Tel: 32/2/501.13.11
Fax: 32/2/501.13.10
Contact: Mr. Jan Herremans, Secretary General

C) Commission for the Regulation of Electricity and Gas (CREG)
Rue Wiertz, 50
1000 Brussels
Tel: 32/2/401.68.67
Fax: 32/2/401.68.68
Contact: Mrs. Christine Vanderveeren, President

D) Management Committee of Electricity Companies (CGEE)
20, rue de la Pepiniere, Box 14
1000 Brussels
Tel: 32/2/501.12.50
Fax: 32/2/501.12.70
Contact: Mr. Jozef Dermaut, Secretary General

E) Electrabel
Boulevard du Regent, 8
1000 Brussels
Tel: 32/2/518.61.11
Fax: 32/2/511.50.20
Contact: Mr. Yvan Hella, Planning Manager

F) Federation Professionnelle des Producteurs et Distributeurs d'Electricite de Belgique (FPE)
Rodestraat, 125
1630 Linkebeek
Tel: 32/2/383.02.11
Fax: 32/2/383.02.05
Contact: Mr. Luc Van Nuffel, Secretary General

G) Distrigas SA
Avenue des Arts, 31
B-1040 Brussels
Tel: 32/2/237.72.11
Fax: 32/2/230.02.39
Contact: Mrs. Heyvaert, Public Relations Director

H) Ministry of Economic Affairs
Energy Administration
North Gate III
Boulevard du Roi Albert II, 16
1000 Brussels

Tel: 32/2/206.45.74
Fax: 32/2/206.57.30
Contact: Mr. A, Juricic

IX. Additional Sources of Information on Sector

The English edition of the National Equipment Program for Electricity Generation and Transmission Facilities 1995-2005 is available through either the CCEG or CGEE – address given above.